

PU-UF3

A transparent high gloss finish on both sides Poly Ether Urethane Thermo plastic film.
Having no memory **PU-UF3** will not fracture as a result of constant flexing.

Advantages

- ✓ Superior flexibility
- ✓ Excellent abrasion resistance
- ✓ Transparent (slightly cloudy)
- ✓ Smooth welded seams
- ✓ Superior chemical resistance for CIP washing
- ✓ Great aging resistance
- ✓ Non porous
- ✓ Smooth non porous surface
- ✓ No material degradation



Applications

Stationary, Vibratory, Gyratory, Sifters, Screeners, Feeders, Spray driers, Fluid Bed, Static Cool Bed, Bin dischargers, Hoppers, Conveyors, Packing equipment, Storage silos, Screw conveyors, Valves, butterfly valves, Rotary valves, Tanks, Silo's, any sort of product handling equipment, Air ducting, Fans, Inflatable seals, Covers, Outside protection sleeves, Bellows, Load cell (high volume, weight and capacity), Harmonica's, Telescopic applications, Vacuum formed shapes.

General Properties

Name :	PU-UF3
Description :	Poly Ether Urethane
Color :	Transparent (cloudy)
Surface :	Gloss / Gloss (both sides)
Surface Roughness :	Ra < 0,1 µm
Wall Thickness :	1,00mm / 0.0393 Inch (+/-10%)
Hardness :	87° Shore A
Tensile Strength :	60 MPa
Maximum Elongation :	550%
Operating Temperature :	-40 °C to 90°C -40 °F to +194 °F
Max. Surge Temp :	+120 °C / +248 °F
Low Temperature Flexibility :	Good
Air Permeability :	0
Type of Material :	Sheet on roll, 1200x50000mm

Filcoflex B.V.

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Pressure Resistance for Flexible Connectors

Flexible Length up to 300mm

0,34 Bar / 5.0 PSI For temperatures up to 90 °C / 195°F

-0,2 Bar / -2.9 PSI For temperatures up to 90 °C / 195°F

These pressures may cause expanded or contracted shapes.

Filcoflex can additionally add reinforcement rings to reduce contraction or expansion of the cylindrical shape.

Please contact us for more information for higher pressures, higher vacuum, or longer lengths.

Weighing Applications

Very suitable for high volume weight and capacity weighing and dosing applications where the required accuracy is >1kg. If the required accuracy is <1KG, please contact Filcoflex and explore Weighing Flexible Connections like silicone bellows, poly urethane bellows, PU-UF03 sleeves or PTFE 310 fabric.

Chemical Resistance

- CIP resistant (see CIP chemicals guide)
- Cleaning Chemicals (see cleaning guide)
- For a detailed chemical resistance please see our chemical compatibility chart

ATEX & Explosion Safety

PU-UF3 has been tested for its electrostatic properties, and has been found ATEX compliant and safe to use in all dust explosion hazardous areas, such as ATEX zones 20, 21, 22.*



Surface Resistance: $5 \times 10^{12} \Omega$ IEC 60093/EN1149 and TRGS 727

Volume Resistance: $3 \times 10^{11} \Omega$ IEC 60093/EN1149-1 and TRGS 727

No propagating brush discharges could be determined.

Non Conductive but safe to use up to a length of 1000mm.*

PU-UF3 has also been explosion pressure tested and found safe to up to an explosion pressure of 1,5 Bar up to a length of 300mm

Food Contact Compliancy

PU-UF3 complies with the following regulations for plastics in repetitive contact with foods:

PU-UF3 has been migration tested as a sheet material and a welded end product such as a bellow, flexible sleeve,

- **United States**
 - FDA 21 CFR 177.1680
- **European Community**
 - (EC) 1935/2004
 - (EC) 10/2011
 - (EU) 2023/1627
 - (EC) 2020/1245
 - (EC) 2023-2006
 - (EC) 10/2011
 - (EC) 1907/2006 (REACH)
- **China***
 - GB 4806.7 – 2016 *
 - GB 9685-2016 *
 - GB 5009.156 *
 - GB 31604.1 – 2015 *



* Restrictions apply, a copy of all certifications can be downloaded, or will be sent to you upon request.
We will be happy to advise further if you have any questions.

Production Methods used

Joining / Bonding:

- Welding
 - HF high frequency welding
Welding the material and cooling it down under compression with Radio Frequency to make the TPU material flow nearly seamless to form a uniform thickness with the original material wall thickness.
 - Heat contact
with silver alloy heating element
Welds are welded surface to surface after which the weld are compressed while cooling.
 - Hot air
hot filtered and conditioned contaminant-, oil- and grease- free compressed air

Cutting :

- Stainless Steel knives
- Water Jet cutting

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